

Briefing

Gender; Water

Key findings and recommendations from IIED research into Fair Water Footprints' activities in Morocco for water security practitioners and funders



Issue date
March 2026

Key points

Many key agricultural production regions are under enormous water stress, creating a growing risk for global food security.

There is wide recognition that addressing this requires collective action across a range of stakeholders; but too often, women, people with disabilities and other marginalised groups are excluded from such efforts.

Failing to take into account gender equality, disability and social inclusion (GEDSI) issues risks making inequalities worse, and could leave these groups even more vulnerable to water security risks.

Fair Water Footprints' experience of embedding GEDSI from the start of their work to catalyse collective action for shared water security in the Souss-Massa region of Morocco offers valuable lessons about the importance of intentional inclusion.

No inclusion, no solution: why water security needs a gender equality, disability and social inclusion lens

As pressure grows on diminishing groundwater reserves in the Souss-Massa region, which generates most of Morocco's agricultural exports, Fair Water Footprints is catalysing collective action for shared water security. Women are central to water use and management in Morocco, yet are excluded from discussions around responses to the growing water crisis and have little say over decisions that affect their access. The situation is even worse for people with disabilities, who face many barriers to accessing safe water. Other groups, such as young people and migrant workers, also face specific water security risks but lack decision-making power. A gender equality, disability and social inclusion (GEDSI)-sensitive approach ensures that everyone's needs are considered and allows for crafting sustainable solutions.

As the global water crisis intensifies, the links between water security and food security are in the spotlight. Many important food-growing regions of the world are approaching, or have already entered, a state of 'water bankruptcy',¹ where demand far exceeds sustainable supply. Water scarcity directly affects agricultural productivity: disruptions to water supply can quickly translate into food shortages that affect everyone, regardless of geography or income. Addressing this challenge requires coordinated, joined-up action from governments, farmers, businesses and communities.

However, collective action alone is not enough. Outcomes depend on who is included in decision making and whose needs are prioritised. Without deliberate attention to GEDSI, collective action risks reinforcing existing inequalities and producing solutions

that are neither sustainable nor widely adopted. Avoiding water bankruptcy is not only a question of coordination but also of inclusion.

The UK government-funded Fair Water Footprints initiative (for more details, see page 4), which IIED is helping to deliver, is supporting collective action in the Souss-Massa region of Morocco, where chronic groundwater overextraction and unreliable rainfall are pushing the area towards water bankruptcy. Fair Water Footprints is building on Morocco's vision and leadership in water management to help forge inclusive collaboration for ensuring that agricultural export production and global trade are underpinned by sustainable, equitable and climate-resilient water use.

The Fair Water Footprints programme prioritises a GEDSI-sensitive approach, recognising that women, people with disabilities and other marginalised groups are often excluded from

conversations about managing shared water resources and are at high risk of not having their specific needs effectively addressed.

This briefing captures lessons from Fair Water Footprints' experience of embedding GEDSI principles into its work in the Souss-Massa region. It shares examples of civil society support for an inclusive approach to shared water security, and builds on these to offer recommendations to others engaged

in collective action on water security in Morocco and beyond.

Water security challenges in Souss-Massa

The Souss-Massa region is the primary engine of Morocco's agricultural export sector, producing the vast majority of the country's exported vegetables.²

It is also material to global food supply chains. Tomatoes, citrus fruit and berries from Souss-Massa find their way to supermarket shelves abroad, especially in Europe.³ But in the fertile valley where these products are grown, rapid expansion in irrigated agriculture is leading to unsustainable rates of groundwater extraction. Water quality is deteriorating due to agricultural runoff, untreated wastewater and seawater intrusion into overexploited aquifers. Exacerbated by lower and increasingly unreliable rainfall, this is turning Souss-Massa into one of the most water-stressed regions in Morocco.⁴

Women are central to water management, but are not yet at the table

Women play a central role in water management in Souss-Massa. In rural households — accounting for around 40% of the region's roughly 3 million people⁵ — women are responsible for sourcing and managing household water, which leaves them more exposed to water security risks and more affected by shortages. Water scarcity increases women and girls' unpaid care and domestic burden and reduces their time for education, paid work, civic participation and rest. It can also intensify economic stress, which has been shown to increase the risk of domestic and gender-based violence.

Souss-Massa has the highest rates of female economic inactivity and precariousness in Morocco. Although female illiteracy rates have

fallen by more than 20% over the past decade as more girls attend school, close to half of the region's rural women are still illiterate.⁶ Many rural women work on family farms as unpaid labour, especially in areas with high levels of male migration to urban centres. Although there are no legal restrictions on women owning land, social norms and traditions mean that few women own the land they farm.⁷ They also face barriers to accessing assets and finance. As family farms are typically highly dependent on rainwater and irrigation, and water allocation for irrigation is often tied to land ownership and farm size, these inequalities reduce women's ability to influence decisions on water use.

Away from rural villages, many women work in the agriculture sector, especially on the large commercial farms that cover the fertile valley. In Souss-Massa, an estimated 70% of the low-wage agricultural workforce are women,⁸ part of the broader trend of 'feminisation' of Morocco's agriculture sector.⁹ The majority of women are employed in manual and seasonal roles. When water shortages lead to production cutbacks, these precarious jobs are the first to be lost.

Gender equality is further advanced in urban areas, and high numbers of women graduate each year with qualifications in engineering and other areas related to water management. In 2021, 42% of all engineering graduates in Morocco were women (twice as many as in the UK). Nevertheless, only around a quarter of people working in Morocco's water and sanitation infrastructure/management are women,¹⁰ as structural barriers reinforce women's marginalisation from water decision making.

Water management in the basin is coordinated by regional institutions, including the Souss-Massa River Basin Agency, which regulates groundwater abstraction, surface water use and pollution control. Water governance is largely centralised and technocratic; women's participation in governance structures is limited due to cultural norms that restrict their mobility and participation in public meetings.

Young people, migrant workers and people with disabilities are excluded from water security discussions and planning

Morocco's high levels of youth unemployment (close to 38% in 2025)¹¹ contributed to the widespread dissatisfaction that boiled over into 2025's 'Gen Z protests', a series of youth-led demonstrations fuelled by high unemployment and inequality.¹² The worsening water crisis in the agricultural sector is expected to further reduce

“Sustainable water security depends on inclusion, local leadership and community-driven change”

Safa Ait Bah, founder and president, Green Engineers Alliance

job opportunities for young people, who have limited access to decision-making structures and little say in water allocation agreements.

As a major agricultural region, Souss-Massa attracts both internal migrants and foreign migrants for farm labour and agro-processing. These migrants often work in precarious and seasonal jobs, leaving them exposed to labour force fluctuations driven by water scarcity; lack of representation increases their vulnerability.

In Morocco, people with disabilities experience extremely low participation in education and employment; estimates from 2014 suggest that 70% of people with disabilities are illiterate and nearly 95% are economically inactive.¹³ This severely limits their scope to participate in water governance discussions or influence decisions that can impact their water security and access.

In general, marginalised groups have little influence over water governance decisions, due to top-down planning approaches, the outsized power of commercial agricultural producers and limited civic participation.

Why a GEDSI-sensitive approach is essential in Souss-Massa

Regulators have responded to the water crisis in Souss-Massa with the creation of an 'aquifer contract' — a negotiated agreement between government, farmers, water users and other stakeholders — reflecting broad recognition that the crisis cannot be resolved by any single actor.¹⁴

However, although there is wide acceptance that addressing water scarcity requires coordinated, cross-sector action and meaningful stakeholder engagement, women, people with disabilities and various others with distinct water needs have so far not been included in these discussions and negotiations.

If deliberate efforts are not made to identify who is currently excluded, to understand their needs and barriers to participation, and to ensure their voices are heard in discussions about solutions, water management interventions could exacerbate existing inequality and leave these marginalised groups even worse off. In Box 1, the co-author of this briefing, Safa Ait Bah, explains why it has been so important to include women and young people in water security discussions in Souss-Massa.

Fair Water Footprints' inclusive approach

Fair Water Footprints is working with local partners in Souss-Massa to catalyse collective action to drive innovation, investment and systemic change

Box 1. Why women and young people are critical for water security discussions

The co-author of this briefing, Safa Ait Bah, comes from Tagraguer, a rural village in the Souss-Massa region. At a two-day multistakeholder workshop in March 2026 in Agadir, she made the case for why it has been so important to include women and young people in water security discussions in Souss-Massa. The following is a summary of her remarks.

The daily, household-level management of water scarcity, is a dimension of water security that is often overlooked in technical and policy discussions. In the rural *douar* (small village) of Tagraguer, access to water depends almost entirely on *mtfias*: traditional systems for collecting and storing untreated rainwater. Here, water security is not only a matter of infrastructure or resource availability, but also one of social justice, inclusion and community ownership.

At the centre of household water management are women. In Tagraguer, as in many rural communities, women are primarily responsible for collecting, storing and rationing water for domestic use. Despite this critical role, they are largely excluded from formal decision-making processes related to water governance. This disconnect limits the effectiveness and sustainability of water interventions. Recognising women as official managers of water points, rather than merely users, represents a key opportunity to improve both equity and outcomes. Formal inclusion would ensure that their knowledge and daily experience directly inform planning, maintenance and allocation decisions.

Youth engagement is another underutilised but essential component of water security. Young people in rural Morocco face significant barriers, including limited access to employment opportunities, insufficient technical training and exclusion from decision making spaces. However, when these barriers are addressed, young people have demonstrated a strong capacity to drive innovation. For example, during a 'hackathon' organised by the Green Engineers Alliance, young participants developed practical solutions to optimise agricultural water use. Despite their limited initial expertise, they were able to propose creative, context-relevant approaches, underscoring the importance of investing in youth capacity building and participation.

A compelling local example comes from the Tifaouine-Tagraguer Association, supported by young people from the village. This community-led initiative has successfully rehabilitated several *mtfias*, installed pumps and provided water access to vulnerable households. Over the course of a year, the initiative facilitated the transport of more than 60 tonnes of water every three months, peaking at 80 tonnes during the summer. It also significantly reduced the physical burden on women, who traditionally bear the responsibility of water collection. The relatively inexpensive rehabilitation of *mtfias* has been particularly impactful for women in vulnerable situations, improving both access and dignity.

Civil society organisations play a critical role in enabling such successes. Their proximity to communities, operational flexibility and ability to adapt solutions to local contexts position them as effective intermediaries between public policy and lived realities. By adopting a field-based, participatory approach, these organisations help ensure that interventions are co-designed with communities, increasing relevance and acceptance.

The central challenge in water security is not only the development of technical solutions, but their adoption. For solutions to be effective, they must be understood, trusted and embraced by the communities they are intended to serve. Without local ownership, even the most advanced interventions risk failure.

The experience of Tagraguer demonstrates a simple but critical lesson: a solution that is not adopted by the population is a solution that does not exist.

in water security management. GEDSI is at the heart of Fair Water Footprints' approach, and an early intention was set to ensure a GEDSI-sensitive approach in its work in the region.

At a two-day multistakeholder workshop in March 2026 in Agadir, the regional capital, representatives from regional and national government joined farmers, businesses and civil society organisations to consider how they can best collaborate to ensure that agricultural export production and global trade are underpinned by equitable, sustainable and climate-resilient water use.

The workshop provided a platform and audience to those whose voices are not often heard in water security discussions and ensured that GEDSI was considered alongside other pressing issues, rather than treated as an afterthought.

In arranging the event, the Fair Water Footprints organising team and its local partners took great care to ensure participation by a wide range of stakeholders. Representatives of communities that might not otherwise have a voice in these kinds of discussions were actively targeted, including young people and those living in remote villages.

In the weeks leading up to the workshop, Fair Water Footprints completed a GEDSI analysis to identify marginalised groups and the barriers that are preventing them from participating in water management decision making. Findings of the desk-based GEDSI analysis were validated and refined at the event during interviews with a wide range of participants.

Ensuring a balanced mix of speakers proved to be challenging — as pointed out above, there are not many senior women working in the water governance space — though those that did speak gave powerful presentations.

Notes

¹ The concept of water bankruptcy describes a condition where water withdrawals exceed renewable supply, and the resulting damage is partly irreversible on societal timescales. First introduced by environmental scientist Kaveh Madani and subsequently popularised through the report he wrote for United Nations University: Madani, K (2026) *Global Water Bankruptcy: living beyond our hydrological means in the post-crisis era*. United Nations University Institute for Water, Environment and Health (UNU-INWEH), Richmond Hill. doi:10.53328/INR26KAM001. /

² Almulla, Y, Ramirez, C, Joyce, B, Huber-Lee, A and Fuso-Nerini, F (2022) From participatory process to robust decision-making: an agriculture-water-energy nexus analysis for the Souss-Massa basin in Morocco, *Energy for Sustainable Development*, 70, pp.314–338. doi:10.1016/j.esd.2022.08.009. / ³ Kingdom of Morocco – Souss Massa Region, Agriculture, www.soussmassa.ma/en/agriculture. Accessed 22 April 2026. / ⁴ Echogdali, FZ, Boutaleb, S, Tariq, A, Hamidi, M, El Mekkaoui, M, Ikirri, M, Abdelrahman, K, Uddin, MG, Akhtar, N, Bendarma, A et al. (2024) Exploring groundwater patterns in Souss-Massa Mountainous Basin, Morocco: A fusion of fractal analysis and machine learning techniques on gravity data, *Journal of Hydrology: Regional Studies*, 54, 101891. doi:10.1016/j.ejrh.2024.101891. / ⁵ Regional Planning Directorate – Souss Massa (no date) Population characteristics RGP 2024: Souss Massa Region, www.hcp.ma/region-agadir/Caracteristiques-de-la-population-RGP-2024-Region-Souss-Massa_a198.html / ⁶ Haut-Commissariat au Plan du Maroc, Direction Régionale de Souss Massa (2025) Capital Humain. www.hcp.ma/region-agadir/attachment/2802455 / ⁷ Among the agricultural population, only 7% of women have secure rights to land, compared to 37% of men. Saghir, ZS (2025) Women's right to land access in Morocco: SDG Indicators 5.a.1 and 5.a.2. African Commission on Agricultural Statistics (AFCAS), 29th Session, Hammamet, Tunisia, 24–28 November. RAF/AFCAS/29/10.5. / ⁸ Chang, M (2014) European Supermarkets Defend Low Wages To Moroccan Tomato Pickers, CorpWatch, 12 November. / ⁹ Ou-Salah, L, Van Praag, L and Verschraegen, G (2024) Feminisation of agriculture and the role of environmental changes: 'It's already a tough job and it's getting tougher due to weather changes', *The Geographical Journal*, 190(1), pp.1–13. doi:10.1111/geoj.12542. / ¹⁰ USAID Water Team (2022) H2O Maghreb Empowers Moroccan Women to Play New Roles in Sustainable Water Management, Global Waters (Medium), 22 June. / ¹¹ Haut-Commissariat au Plan du Maroc (2026) Situation du marché du travail en 2025, 3 February. / ¹² Cumanzala, M (2025) AD1004: Youth like Morocco's direction even as jobs remain scarce and interest in emigration grows. Afrobarometer Dispatch No. 1004. / ¹³ Hajjioui, A, Abda, N, Guenouni, R, Nejari, C and Fourtassi, M (2019) Prevalence of disability in Morocco: Results from a large-scale national survey, *Journal of Rehabilitation Medicine*, 51(10), pp.805–812. doi:10.2340/16501977-2611. / ¹⁴ Closas, A and Molle, F (2016) Groundwater Governance in the Middle East and North Africa. IWMI Project Report No. 1. International Water Management Institute.

Fair Water Footprints' experience in Morocco has generated a number of recommendations for steps to take to ensure the GEDSI is fully embedded in collective action efforts to strengthen shared water security. These learnings can be applied in any situation where multiple stakeholders have to join forces to address a common water quality or scarcity challenge.

Recommendations

- When starting a new water security project that requires collaborative action, set the intention to be GEDSI-sensitive at the start to ensure it is fully embedded in all project activities. Create GEDSI-specific targets, supported with adequate resources, and ensure accountability with a GEDSI-aligned reporting framework.
- Do a GEDSI assessment to better understand the local context and identify groups that may experience increased water security vulnerability and who are at risk of exclusion. Follow up with a GEDSI risk assessment and a GEDSI action plan, and refer back to them throughout the project's implementation.
- Identify local expert partner organisations that are embedded in and trusted by the communities where the work will take place, and ensure they are adequately resourced.
- Collect gender-, age- and disability-disaggregated data at each stage of the project, from baseline assessment through to impact measurement.

Hester le Roux and Safa Ait Bah

Hester le Roux, GEDSI advisor, Fair Water Footprints; Safa Ait Bah, founder and president, Green Engineers Alliance, Morocco



Knowledge Products

IIED's mission is to build a fairer, more sustainable world, using evidence, action and influence in partnership with others.

Contact

Morgan Jennings
morgan.jennings@iied.org

44 Southampton Buildings
London, WC2A 1AP
United Kingdom

Tel: +44 (0)20 3463 7399
www.iied.org

IIED welcomes feedback via: www.linkedin.com/company/iied

ISBN: 978-1-83759-211-1

This briefing has been produced as part of the Just Transitions for Water Security programme, funded by the UK Foreign, Commonwealth and Development Office through the Fair Water Footprints consortium. The views expressed do not necessarily reflect those of the donor.

FIND OUT MORE

Our work on this topic is being undertaken as part of the Fair Water Footprints programme, a partnership between governments, the private sector and civil society to transform how the global economy interacts with and values water, by reducing water security vulnerabilities in communities and regions where companies source raw materials and products. It was launched at the 2021 United Nations Climate Change Conference (COP26) with the Glasgow Declaration for Fair Water Footprints. Water security affects different groups in different ways, so GEDSI is central to all of the initiative's work. Learn more about the programme at www.fairwaterfootprints.org

